

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

| | | |
|---|--|--|
| Applicant's or agent's file reference P020815WO DAA | FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below. | |
| International application No. PCT/GB2004/003406 | International filing date (day/month/year) 06/08/2004 | (Earliest) Priority Date (day/month/year) 22/08/2003 |
| Applicant DANISCO A/S | | |

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The International search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☒ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the **drawings** to be published with the abstract is Figure No. _____

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☒ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

national Application No

PCT/GB2004/003406

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B01J13/04 A23L1/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01J A23L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, CHEM ABS Data, MEDLINE, BIOSIS, FSTA

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|---|
| X | US 5 204 029 A (MORGAN ROBERT ET AL) 20 April 1993 (1993-04-20) cited in the application column 3, line 4 - column 7, line 7 ----- | 1-3, 8-19, 23, 28, 29, 31-34, 36-38 |
| X | US 5 580 573 A (KYDONIEUS AGIS ET AL) 3 December 1996 (1996-12-03) the whole document ----- | 1-3, 8-10, 12, 13, 39, 40 |
| X | CH 509 098 A (NCR CO) 30 June 1971 (1971-06-30) the whole document ----- | 1-36 |
| | -/-- | |

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

18 January 2005

Date of mailing of the international search report

28/01/2005

Name and mailing address of the ISA

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Popa, M

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INTERNATIONAL SEARCH REPORT

International Application No
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| P, X | WO 2004/041251 A (JIN YULAI ; MOULTON SHAWN (CA); PERRIE TRUC-CHI (CA); OCEAN NUTRITION) 21 May 2004 (2004-05-21) page 2, line 30 - page 4, line 7 page 5, line 13 - page 8, line 17 ----- | 1-40 |
| A | US 5 780 056 A (AKAMATSU TAKU ET AL) 14 July 1998 (1998-07-14) the whole document ----- | |
| A | WO 87/01587 A (BIOCOMPATIBLES LTD) 26 March 1987 (1987-03-26) page 5A, line 11 - page 8, line 16 ----- | |
| A | US 2002/061954 A1 (DAVIS DANNY ALLEN ET AL) 23 May 2002 (2002-05-23) paragraphs '0015! - '0028! ----- | |
| A | US 6 375 968 B1 (QUONG DOUGLAS) 23 April 2002 (2002-04-23) the whole document ----- | |

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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 5, 7, 8, 10, 16, 25-27

Present claims 5, 7, 10, 16, 26 relate to an extremely large number of possible compounds. Support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT is to be found, however, for only a very small proportion of the compounds. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Consequently, the search has been carried out for those parts of the claims which appear to be supported and disclosed, namely those parts relating to the compounds belonging to the group of silicone dioxide and titanium dioxide.

Present claims 8, 25, 27 relate to an extremely large number of possible compounds. In fact, the claims contain so many variables, possible permutations and provisos that a lack of clarity (and conciseness) within the meaning of Article 6 PCT arises to such an extent as to render a meaningful search of the claims impossible. Consequently, the search has been carried out for those parts of the application which do appear to be clear (and concise), namely those compounds recited in the examples.

Present claims 8, 25 and 27 relate to a product and its associated method defined (inter alia) by reference to the following parameters:

- P1: storage temperature
- P2: glass transition temperature
- P3: sintering temperature
- P4: gelling temperature

The use of these parameters in the present context is considered to lead to a lack of clarity within the meaning of Article 6 PCT. It is impossible to compare the parameters the applicant has chosen to employ with what is set out in the prior art because the skilled person would have to identify first the mentioned compounds, which can be millions, then to identify for each combination these parameters. The lack of clarity is such as to render a meaningful complete search impossible. Consequently, the search has been restricted to the parts relating to the embodiments mentioned in the examples.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2004/003406

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 5, 7, 8, 10, 16, 25-27
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

national Application No

PCT/GB2004/003406

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|----|---------------------|---|--|
| US 5204029 | A | 20-04-1993 | NONE | |
| US 5580573 | A | 03-12-1996 | AT 184481 T CA 2060113 A1 DE 69229972 D1 DE 69229972 T2 EP 0497626 A1 JP 5042226 A | 15-10-1999 02-08-1992 21-10-1999 27-04-2000 05-08-1992 23-02-1993 |
| CH 509098 | A | 30-06-1971 | AT 291941 B BE 731047 A DE 1917930 A1 DK 126975 B FR 2006128 A5 GB 1217445 A IT 943066 B JP 50007031 B NL 6905634 A NO 127792 B SE 342150 B US 3576759 A | 10-08-1971 15-09-1969 06-11-1969 10-09-1973 19-12-1969 31-12-1970 02-04-1973 20-03-1975 14-10-1969 20-08-1973 31-01-1972 27-04-1971 |
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| US 5780056 | A | 14-07-1998 | JP 3555640 B2 JP 9302379 A | 18-08-2004 25-11-1997 |
| WO 8701587 | A | 26-03-1987 | AT 60507 T DE 3677369 D1 EP 0237542 A1 WO 8701587 A1 JP 63501290 T | 15-02-1991 07-03-1991 23-09-1987 26-03-1987 19-05-1988 |
| US 2002061954 | A1 | 23-05-2002 | US 2004169299 A1 AU 9477201 A WO 0226911 A1 | 02-09-2004 08-04-2002 04-04-2002 |
| US 6375968 | B1 | 23-04-2002 | AU 1078001 A CA 2386887 A1 DE 60007650 D1 DE 60007650 T2 EP 1221841 A1 JP 2003512395 T WO 0130146 A1 | 08-05-2001 03-05-2001 12-02-2004 11-11-2004 17-07-2002 02-04-2003 03-05-2001 |

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